Volume: 3 2017 Issue: 1 ISSN 1339-9640



ABSTRACTS

ABSTRACTS

Received: 23 Jan. 2017 Accepted: 11 Feb. 2017

APPLICATION OF CLUSTER ANALYSIS IN THE STORAGE SYSTEM

(pages 1-4)

Jana Kronová

Technical University of Košice, Faculty of Mechanical Engineering, Institute of management, Industrial and digital engineering, Park Komenského 9, 042 00 Košice, Slovakia, jana.kronova@tuke.sk

Peter Trebuňa

Technical University of Košice, Faculty of Mechanical Engineering, Institute of management, Industrial and digital engineering, Park Komenského 9, 042 00 Košice, Slovakia, peter.trebuna@tuke.sk

Peter Čižnár

Technical University of Košice, Faculty of Mechanical Engineering, Institute of management, industrial and digital engineering, Park Komenského 9, 042 00 Košice, Slovakia, peter.ciznar@tuke.sk

Keywords: cluster analysis, storage system, dendrogram

Abstract: The paper will deal with the application of cluster analysis in the storage system of a selected manufacturing company from the automotive industry. The cluster analysis will be based on monthly business expedition data. The result will be dendrogram representation of clusters, from which we select the optimal number of clusters. These clusters will present a proposal for storage products. Cluster analysis belongs to multivariate matematical-statistical methods. The aim of cluster analysis is to create clusters based on the similarity in compliance the conditions that the similarity of objects within the cluster is the largest, and similarity clusters as small as possible. Similarity is a fundamental idea in the formation of clusters of stocks.

Received: 21 Feb. 2017 Accepted: 05 Mar. 2017

APPLICATION OF SIMULATION TOOL FOR SCHEDULING IN

ENGINEERING

(pages 5-10)

Darina Dupláková

Technical University of Kosice, Faculty of Manufacturing Technologies with a seat in Presov, 080 01 Presov, Slovakia, darina.duplakova@tuke.sk

Svetlana Radchenko

Technical University of Kosice, Faculty of Manufacturing Technologies with a seat in Presov, 080 01 Presov, Slovakia, svetlana.radchenko@tuke.sk

Lucia Knapčíková

Technical University of Kosice, Faculty of Manufacturing Technologies with a seat in Presov, 080 01 Presov, Slovakia, lucia.knapcikova@tuke.sk

Michal Hatala

Technical University of Kosice, Faculty of Manufacturing Technologies with a seat in Presov, 080 01 Presov, Slovakia, michal.hatala@tuke.sk

Ján Duplák

Technical University of Kosice, Faculty of Manufacturing Technologies with a seat in Presov, 080 01 Presov, Slovakia, jan.duplak@tuke.sk

Keywords: simulation software, scheduling, engineering

Abstract: This article is focused on the possibility of application of simulation tool for scheduling in manufacturing plants. Introduction of this article describes the function of attributes of the jobs or machines – dispatching rules. After that it is

Volume: 3 2017 Issue: 1 ISSN 1339-9640



ABSTRACTS

created the general overview of the most common used scheduling software in the manufacturing plants. The last part of this article is dedicated to practical example of application the scheduling software in the manufacturing plant.

Received: 25 Feb. 2017 Accepted: 19 Mar. 2017

POSSIBILITIES OF INFLUENCING THE POSTURE AND LOCOMOTION BY AFO ORTHOSIS WHILE SUFFERING FROM SPINA BIFIDA

(pages 11-14)

Katarína Šromovská

Technical University of Košice, Faculty of Mechanical Engineering, Department of Biomedical Engineering and Measurement, Letná 9, 042 00 Košice, Slovakia, katarina.sromovska@student.tuke.sk

Monika Michalíková

Technical University of Košice, Faculty of Mechanical Engineering, Department of Biomedical Engineering and Measurement, Letná 9, 042 00 Košice, Slovakia, monika.michalikova@tuke.sk

Marianna Trebuňová

Technical University of Košice, Faculty of Mechanical Engineering, Department of Biomedical Engineering and Measurement, Letná 9, 042 00 Košice, Slovakia, marianna.trebunova@tuke.sk

Jozef Živčák

Technical University of Košice, Faculty of Mechanical Engineering, Department of Biomedical Engineering and Measurement, Letná 9, 042 00 Košice, Slovakia, jozef.zivcak@tuke.sk

Keywords: AFO orthosis, spina bifida, locomotion

Abstract: The work is focused on the possibility of influencing pathological standing and walking, using AFO orthoses while being disabled in the lower limbs with spina bifida, in other words, suffer from spine cleft. To influence the posture and locomotion of the patient with spina bifida - myelomeningocele, the application of AFO Carbon Ankle Seven was chosen [1]. The patient's muscle groups controlling the foot were significantly weakened, the knees were in a varus position. While standing, distinct hyperlordosis was visible and, at the same time, a slight bending of the torso as a result of balancing compensation was obvious. The main purpose of orthosis use is to improve the stability, balance, movement and walking dynamics of the patient.